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16 Razorback Whale

1 Cattle ttatcacaaatccagaactgacaccaaaaaatattaaacaaaacaccccttgagaaacaaatgaacgaaaattatttcctctttttattaccctgttaa---
2 Chicken taacaacaacc---ctgaacacaaaattaca-acaactaaaccc-acccc-c-tgaacctgaccatgaacctaa-----
3 Pig accgcagaaagccacgaataatctgaactcgaacactcaaaaacacatgacaccccttgagaaataaataatgacgaaaaatctatttgctctttttattgcccctacgataa

[illegible]

Fig. 4

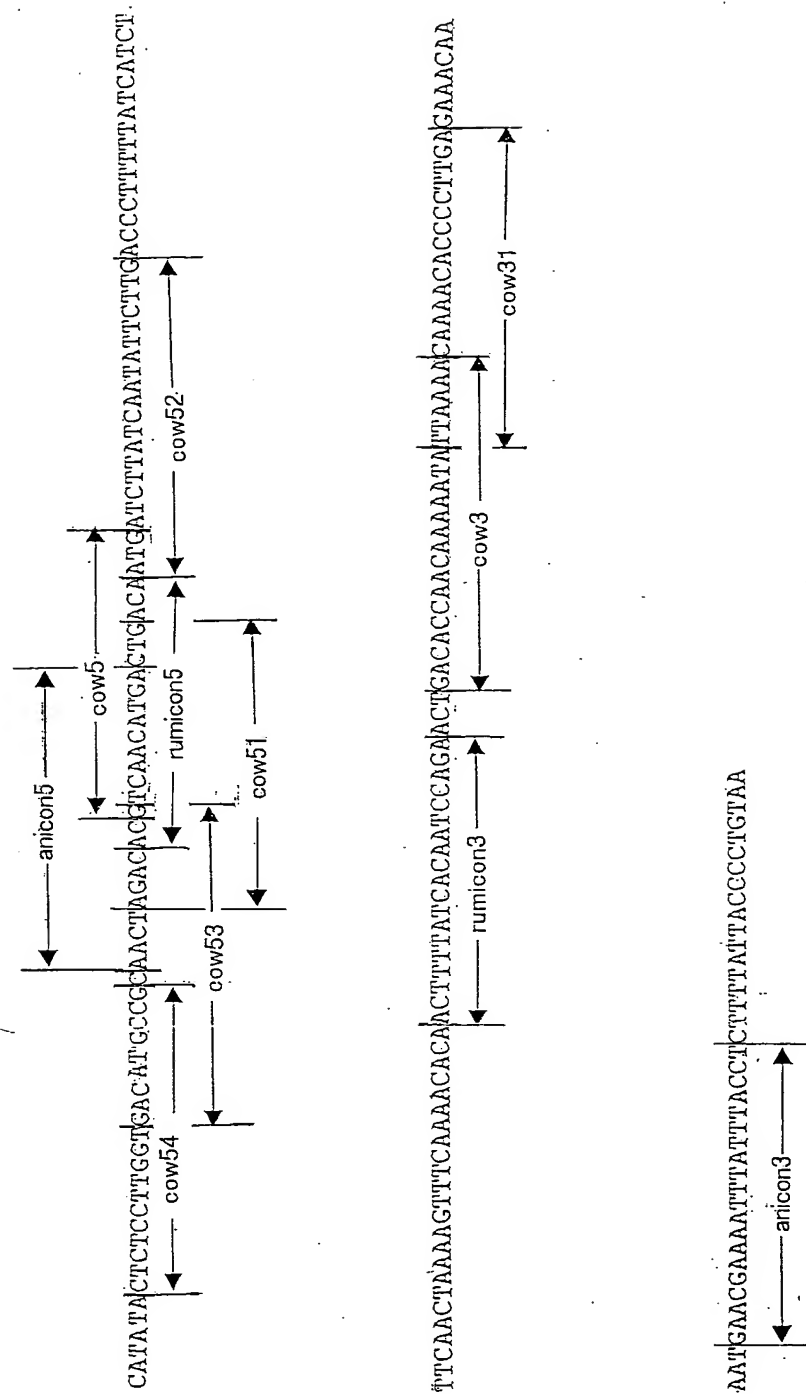
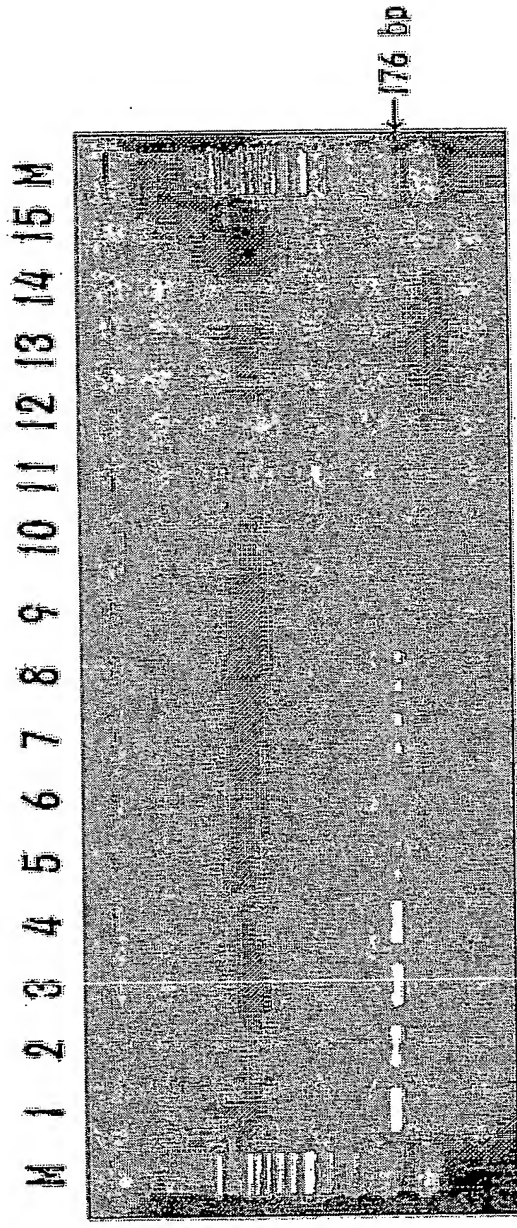


Fig. 5

PCR Using Primer Pair for Detecting Mammal-Specific DNA Sequence



- 1 Cattle 2 Sheep 3 Goat 4 Deer 5 Pig 6 Horse
- 7 Rabbit 8 Whale 9 Chicken 10 Codfish 11 Salmon
- 12 Pilchard 13 Crab 14 Prawn 15 Clam M Marker

Fig. 6

PCR Using Primer Pair for Detecting Ruminant-Specific DNA Sequence

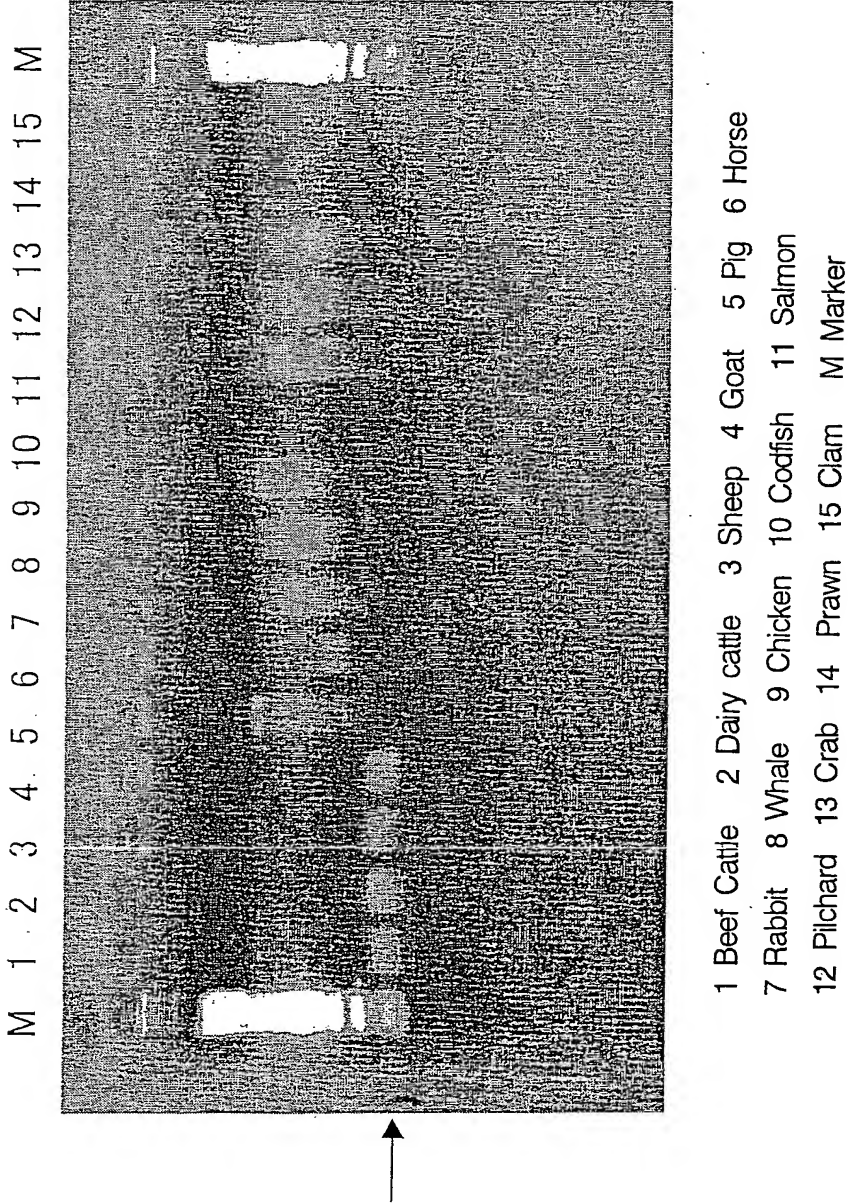


Fig. 7

PCR Using Primer Pair for Detecting Ruminant-Specific DNA Sequence

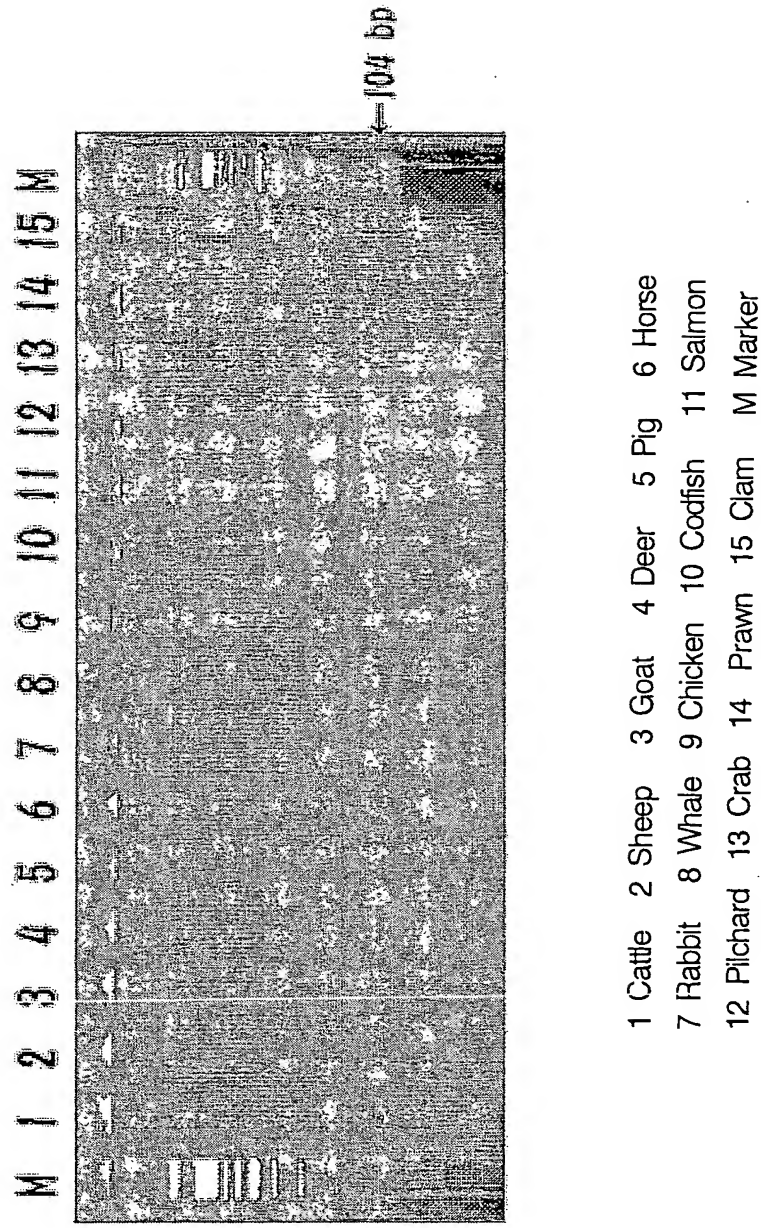


Fig. 8

PCR Using Primer Pair (cow51 and cow3) for Detecting
Cattle-Specific DNA Sequence

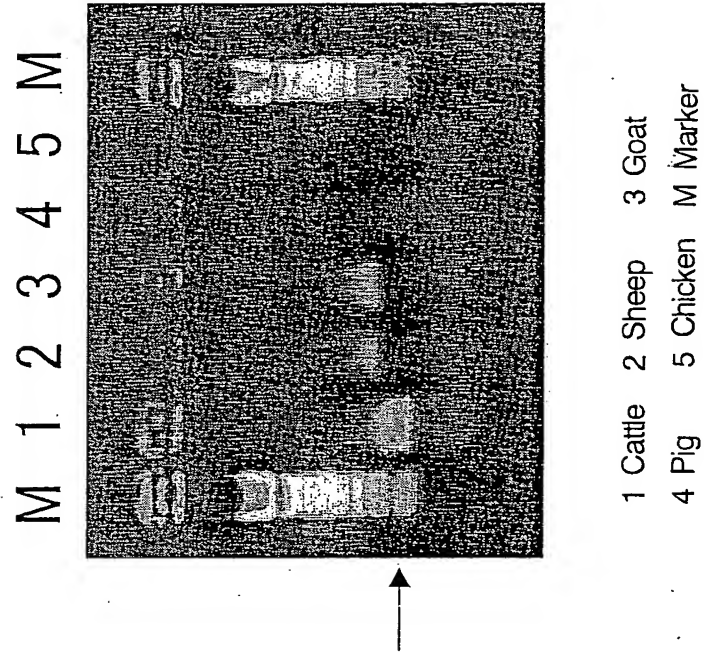
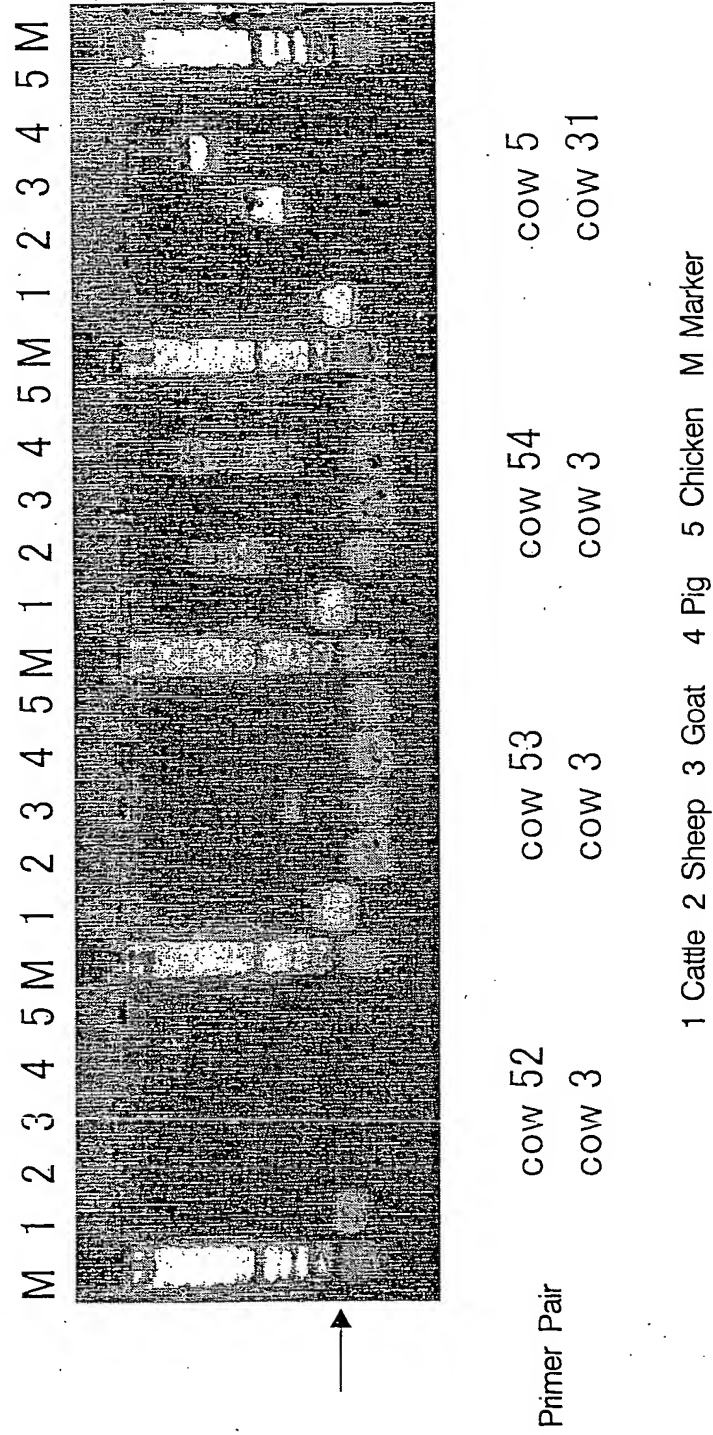


Fig. 9

Comparison of Detection of Cattle-Specific DNA Sequences



Primer Pair

cow 52
cow 3

cow 53
cow 3

cow 54
cow 3

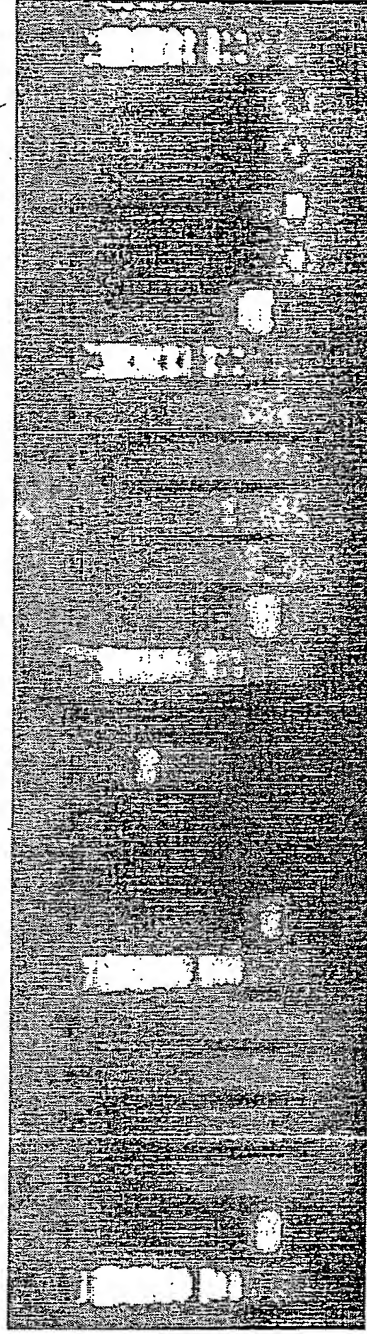
cow 5
cow 31

1 Cattle 2 Sheep 3 Goat 4 Pig 5 Chicken M Marker

Fig. 10

Comparison of Detection of Cattle-Specific DNA Sequences

M 1 2 3 4 5 M 1 2 3 4 5 M 1 2 3 4 5 M



Primer Pair
cow 51
cow 31

cow 52
cow 31

cow 53
cow 31

cow 54
cow 31

1 Cattle 2 Sheep 3 Goat 4 Pig 5 Chicken M Marker

Fig. 11

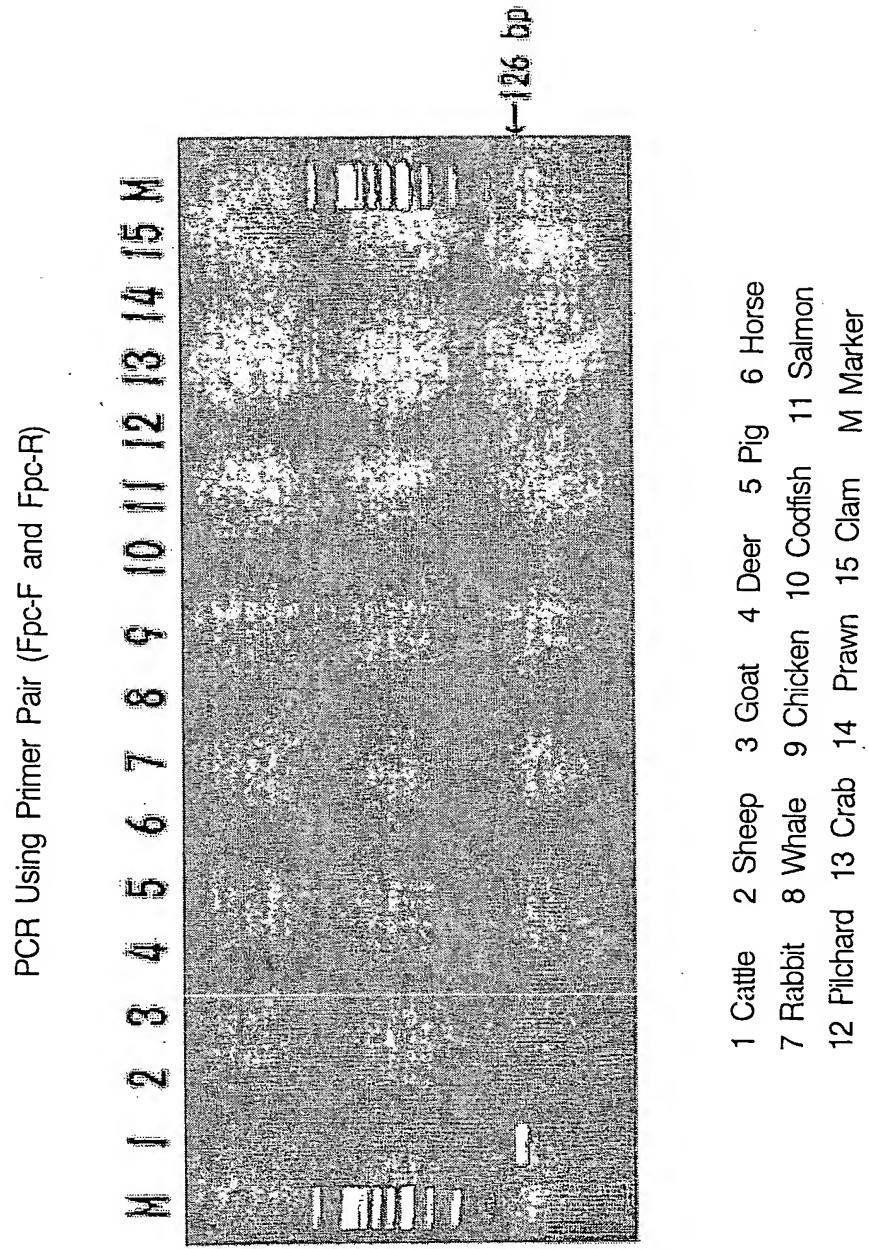


Fig. 12

PCR Using Pig-Specific Primer Pair

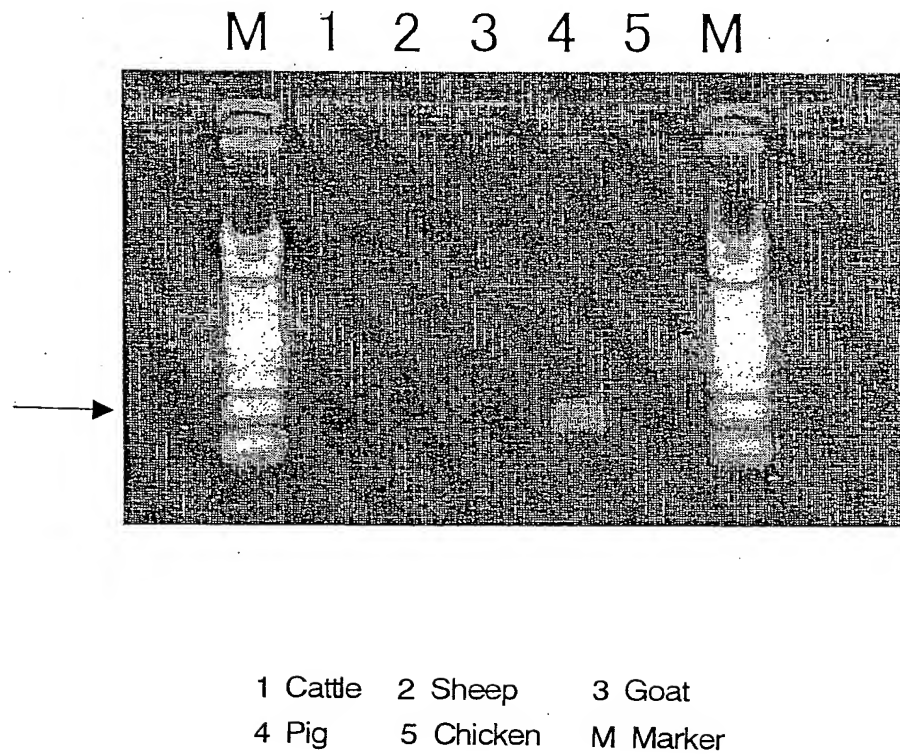
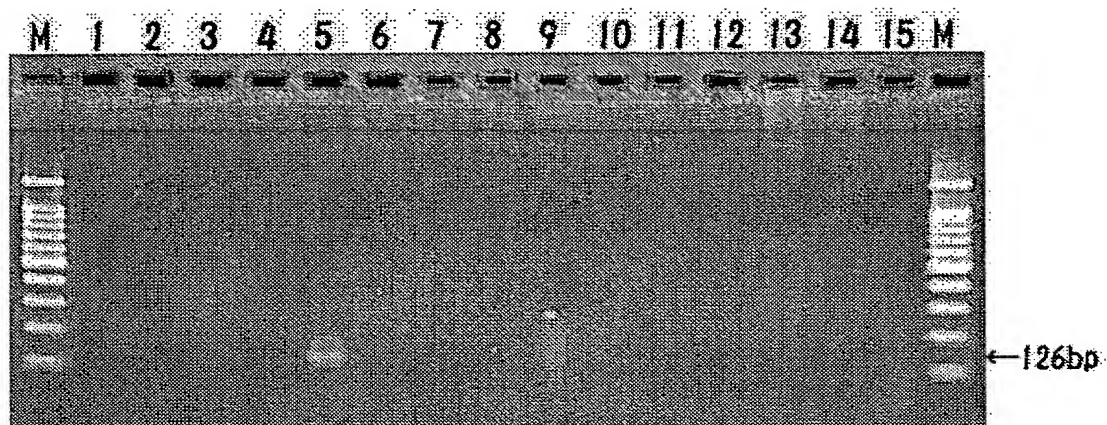


Fig. 13

PCR Using Pig-Specific Primer Pair



1 Cattle 2 Sheep 3 Goat 4 Deer 5 Pig 6 Horse
7 Rabbit 8 Whale 9 Chicken 10 Codfish 11 Salmon
12 Pilchard 13 Crab 14 Prawn 15 Clam M Marker

Fig. 14

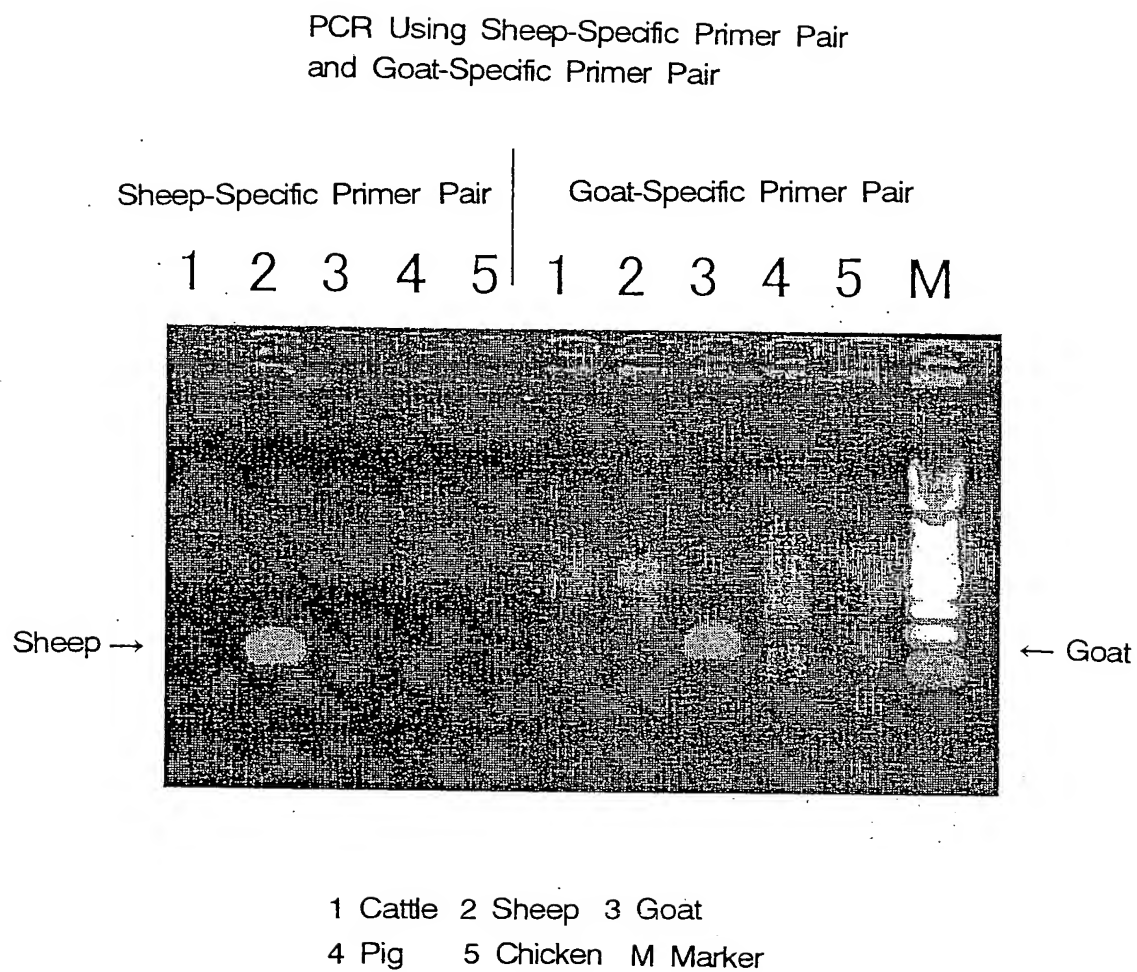
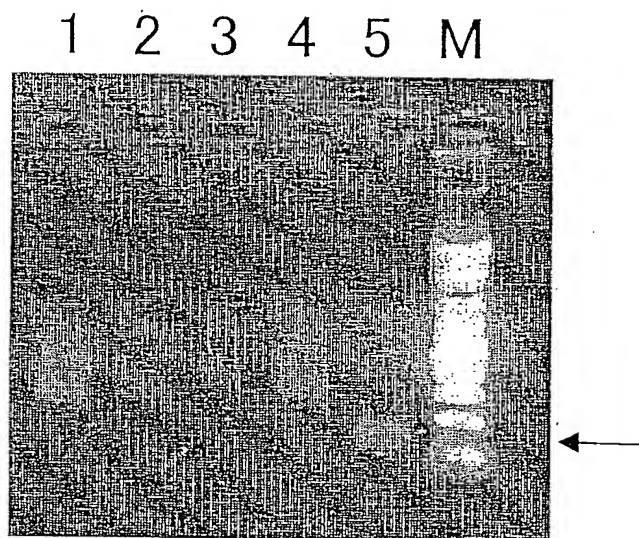


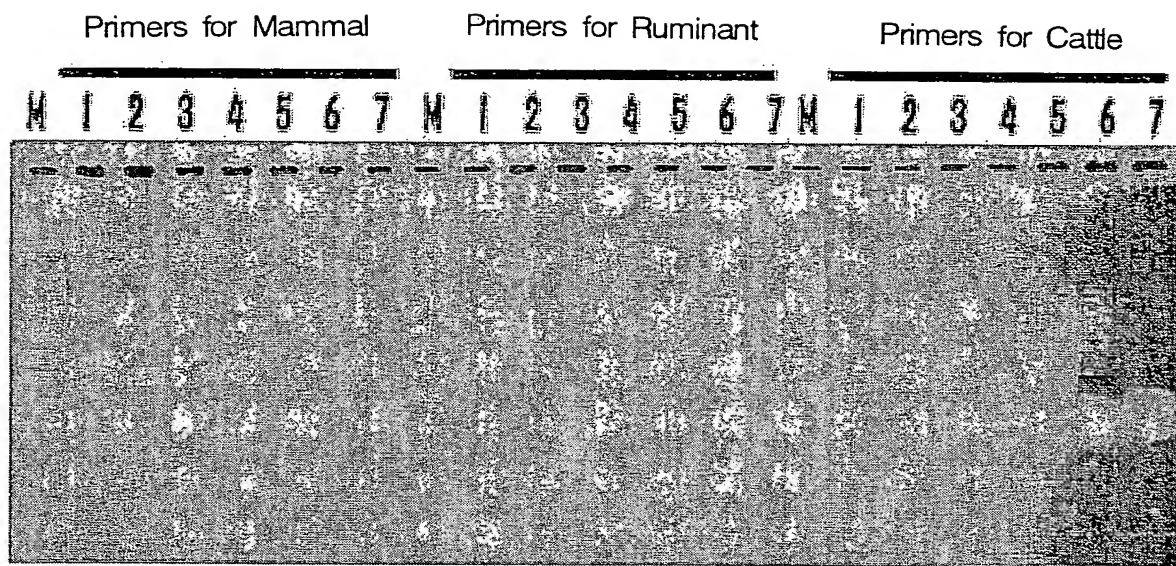
Fig. 15

PCR Using Chicken-Specific Primer Pair



1 Cattle 2 Sheep 3 Goat
4 Pig 5 Chicken M Marker

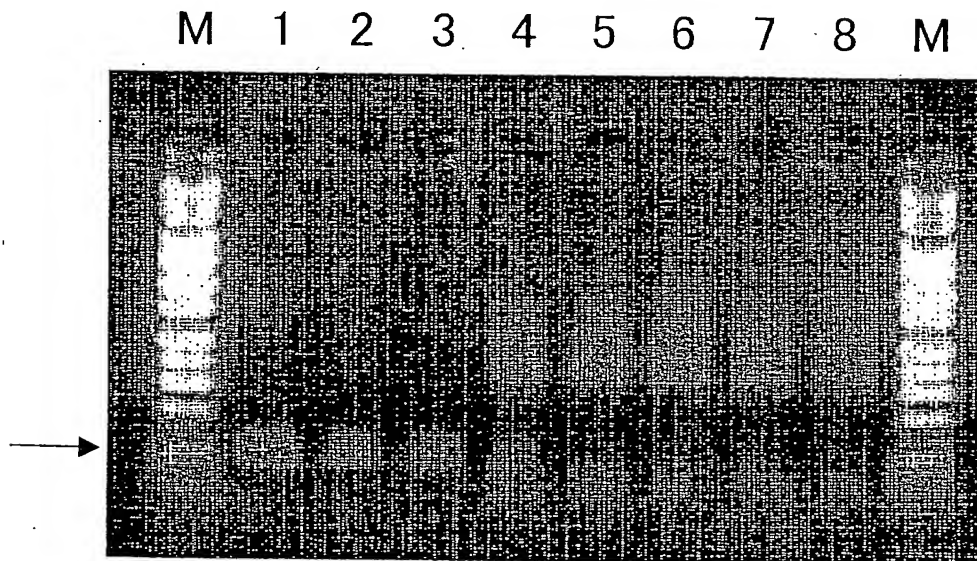
Fig. 16



- 1 Meat and Bonemeal
- 2 10% Meat and Bonemeal in Mixed Feed
- 3 1% Meat and Bonemeal in Mixed Feed
- 4 0.1% Meat and Bonemeal in Mixed Feed
- 5 0.01% Meat and Bonemeal in Mixed Feed
- 6 Mixed Feed
- 7 Negative Control (Without DNA Template)
- M Marker

Fig. 17

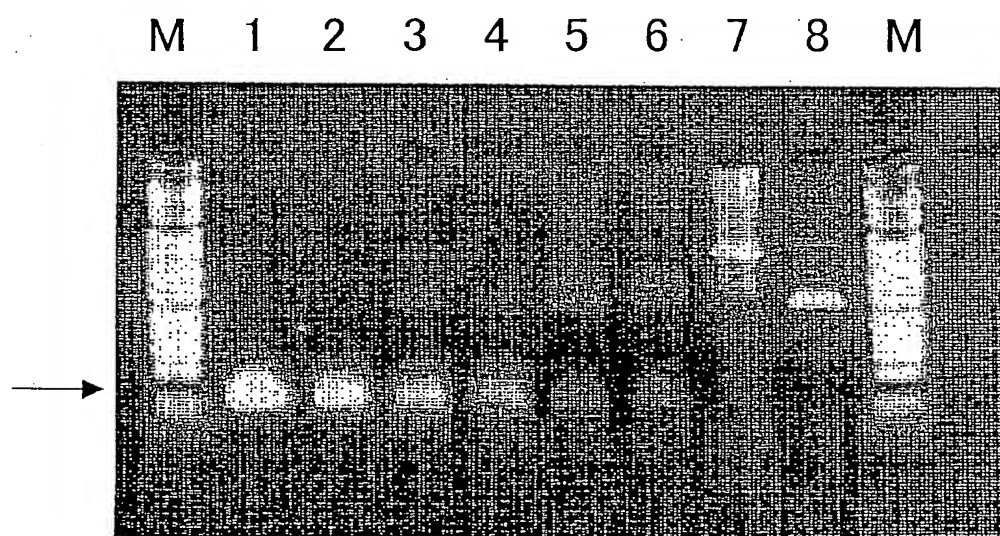
Detection of DNA Sequence in Mixed Feed containing Meat and Bonemeal
Using Ruminant-Specific Primer pair



- 1 Meat and Bonemeal
- 2 10% Meat and Bonemeal in Mixed Feed
- 3 1% Meat and Bonemeal in Mixed Feed
- 4 0.1% Meat and Bonemeal in Mixed Feed
- 5 0.01% Meat and Bonemeal in Mixed Feed
- 6 0.001% Meat and Bonemeal in Mixed Feed
- 7 0.0001% Meat and Bonemeal in Mixed Feed
- 8 Mixed Feed
- M Marker

Fig. 18

Detection of DNA Sequence in Mixed Feed containing Meat and Bonemeal
Using Cattle-Specific Primer pair



- 1 Meat and Bonemeal
- 2 10% Meat and Bonemeal in Mixed Feed
- 3 1% Meat and Bonemeal in Mixed Feed
- 4 0.1% Meat and Bonemeal in Mixed Feed
- 5 0.01% Meat and Bonemeal in Mixed Feed
- 6 0.001% Meat and Bonemeal in Mixed Feed
- 7 0.0001% Meat and Bonemeal in Mixed Feed
- 8 Mixed Feed
- M Marker